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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/637,130	08/08/2003	Janel Lanphere	01194-465001 / 03-347	3843

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BOSTON, MA 02110

EXAMINER
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LE, HOA T

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/637,130

**Applicant(s)**

LANPHERE ET AL.

**Examiner**

H. T. Le

**Art Unit**

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date Sept. '04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's confirmation of the election and cancellation of the non-elected claim 31 are acknowledged.

### *Double Patenting*

2. Claims 1-30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 19-33 of copending Application No. 10/215,594 for reasons set forth in the last office action.

Applicant's request this provisional rejection be held in abeyance is acknowledged. However, Applicant is advised that the rejection cannot be overcome until a proper terminal disclaimer is submitted.

### *Claim Rejections - 35 USC § 112*

3. Claims 1-9, 11-30 and 32-58 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Difference in pore density at between the interior region and the surface region appears to be the key of the claimed invention. However, the specification provides no description or guidance as to how such pore density relationship can be achieved.
4. Claims 2, 4 and 32-40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which

was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 2, 4 and independent claim 32 and its dependent claims (33-40) include the limitation that the pore density at an interior region is greater than the pore density at a surface region. However, at page 7, lines 15-16, it is stated that “[p]ores near the center of the particle are relatively large, and pores near the surface of the particle are relatively small.” From this statement, it means that there would be fewer number of pores in the interior region of the particle and more in the surface; consequently, the pore density at an interior region should be smaller than the pore density at a surface region because pore density is measured by the number of pores per area or per volume unit. This statement in the statement is in direct contrast with the pore structure required in claims 2, 4, and claims 32-40. Thus Applicant did not have possession of the claimed invention at the time the application was filed.

5. Claims 2, 4 and 32-40 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 2, 4 and 32-40 fail to correspond in scope with that which applicant regard as the invention can be found in the specification at page 7, lines 15-16 and figures 2C-2E. In there, it is stated and shown that pores near the center of the particle are relatively larger than pores near the surface of the particle. This means that there would be fewer number of pores in the interior region of the particle and more in the surface; and consequently, the pore density at an interior region should be smaller than the pore density at a surface region

because pore density is value of the number of pores per area or per volume unit.

However, claims 2, 4 and 32-40 require that the pore density at an interior region be greater than the pore density at a surface region.

*Claim Rejections - 35 USC § 102*

6. Claims 1, 3-9, 13, 14, 18-22, 25-30, 41-45, and 48-58 are rejected under 35 U.S.C. 102(b) as being anticipated by the Smith patent (US 5,888,930).

Claim 1: The Smith patent teaches a spherical bead comprising polyvinyl alcohol having diameter from 5  $\mu\text{m}$  to 5000  $\mu\text{m}$ . See col. 2, lines 46-66 (note polymer of ethylene vinylalcohol is suggested). The pore sizes are very small near the surface to very large pores in the interior (col. 2, lines 50-53), which lead to different in pore density between the interior region and the surface region.

Claims 3-4: See col. 2, lines 50-53.

Claims 5-8: The claimed diameter range falls within the range taught by the Smith patent at col. 2, lines 46-49.

Claim 9: See col. 2, lines 57-66.

Claims 13-14: The particles are spherical, thus their sphericity must be at least 0.9.

Claims 18-19: The polymers as listed at col. 2, lines 57-66 are insoluble in DMSO and are free of animal-derived compounds.

Claims 20-21: See rejection to claim 1. Larger pores in the interior region would mean that average pore size at the interior region is greater than that at the surface region.

Claims 22 and 30: See examples 20-22 where the particles are mixed in a carrier fluid (a mixture of sticker, surfactant and water).

Claims 25-29 and 54-58: The claimed diameter range falls within the range taught by the Smith patent at col. 2, lines 46-49.

Claim 41: See rejection to claim 1. Larger pores in the interior region would mean that average pore size at the interior region is greater than that at the surface region.

Claims 42-45: The claimed diameter range falls within the range taught by the Smith patent at col. 2, lines 46-49.

Claims 48-51: The claimed diameter range falls within the range taught by the Smith patent at col. 2, lines 46-49.

(Note that claims 2 and 32-38 are rejected under 35 112 first paragraph. If these claims are amended to obviate the 112 rejection, art rejection based on the Smith patent will be applied).

7. Claims 41-46 are rejected under 35 U.S.C. 102(b) as being anticipated by the Quelle patent (DE 100 26 620).\*

Claims 41-45: The Quelle patent teaches porous polymeric particles having diameter of from 100 nm to 30  $\mu\text{m}$  or 30 to 1000  $\mu\text{m}$  (see the translation copy, page 7, par. 0012 and 0014) which satisfies the claimed diameter range of 500  $\mu\text{m}$  or less. The particles are porous yet the outer shell is nonporous (see claim 3); therefore, the average pore size of the inner region must be greater than the average pore size at the surface region.

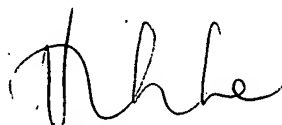
Claim 46: See claim 13.

8. Applicant's arguments with respect to claims 1-9, 11-30, and 32-58 have been considered but are moot in view of the new grounds of rejection set forth above.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511. The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



H. T. Le  
Primary Examiner  
Art Unit 1773

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\* The translation of this reference has been provided by Applicant.